



## Revealing the Inner Beauty of Academic Research: Lessons from the Beauty and the Beast

*Beauty and the Beast* offers wonderful lessons on how to write research papers with greater impact. The story focuses on three characters - two that are beautiful on the outside (Belle and Gaston) and one who is ugly (the Beast). Belle's beauty is both on the surface and deep-rooted – something rare. However we gradually see the less apparent (internal) beauty of the Beast and how once that hidden beauty is revealed in the correct manner, the Beast is rapidly transformed into a Beauty (handsome prince). And then of course since *Beauty and the Beast* is a fairy tail: *the important characters all live happily ever after.*

Too many authors fail to find and release the inner beauty of their papers. Occasionally an editor or a reviewer will attempt to do so. Sometimes this is successful and the paper is transformed - its newfound beauty drawing large numbers of readers to it. Often the author cannot see the hidden beauty in their work and fails to follow the path to improvement that the editor(s)/reviewer(s) hints at. Once this happens the editor(s)/reviewer(s) give up, because they feel that they were mistaken or that the beauty is present but is too much effort to release.

Having offered a picture that is both tragic and dreamy, the surface ugliness that can obscure the beauty inside is explored. For academic theory in technology innovation management (and many other areas of social science): *Beauty is Novelty and Generalizability. The Beast is Confirmation of existing knowledge and high specificity or contextual dependence.* A paper is a Beast if it only provides: confirmation of what already is known, calls for provision of further evidence, offers insight only into a specific location or a specific technology. A paper that provides novel findings that are widely generalizable is a Beauty.

For Doctoral theses it might be sufficient to: pose a question, test it with appropriate method and statistical analysis, and report the results. In fact, [Sun and Linton \(2014\)](#) found this approach to dominate in a group of desk-rejected papers. However, the high impact papers were very different. These papers focused on (a) *Literature* – setting of context and identifying the gap that needs filling – and (b) *Discussion* – explaining the contribution. The contribution of a high impact research paper requires more physical space. It is in this part of an article in which the inner Beauty is revealed. The detailed discussion (contribution) of a high impact paper reveals the deep *Beauty* of the paper's contribution in terms of novelty, generalizability and the associated implications:

- 1) Novelty
- 2) Generalizability
- 3) Implications

### 1. Novelty

Many submissions to journals consider contribution to be verification of previous work - further evidence that someone's earlier work is correct. While it is polite, comfortable, and non-controversial to state that earlier research is correct – it is not interesting ([Baba, 2016](#)). Interesting is new and useful. People are interested in reading about and sharing new and useful things (through discussion or citation). The author needs to consider what is new in her/his research findings and exactly who and why people will be interested. The appropriate target journal is the outlet whose readers are most likely to find the article the most interesting. The abstract, discussion and conclusions sections should report the interesting novel content, thereby encouraging the relevant audience to read further. In summary: New (beautiful) and Me Too (beastly).

### 2. Generalizability

Generalizability considers the range of situations that research is applicable to. Unfortunately, many people dwell too heavily on the exact context of the research – e.g. location, industry and technology. For example, an author may state that no research has been conducted on the use of mobile telephony by small businesses in Libya. The question the author needs to ask her/himself is in what ways is this context (a) unique and (b) generalizable. Are these results likely to be generalizable to all organizations, serving all customers in every industry with every technology in all parts of the world? While universal generalizability from any single study is unlikely, by considering the important underlying characteristics of the context one gets insight into where the results are likely to be relevant. Of perhaps even greater importance is identifying situations/contexts in which the results are likely to differ.

The example -mobile telephony in small businesses in Libya- is considered further as an exemplar. (1) Business size - if business size is important to the results under consideration, the results are unlikely to be relevant to large organizations and government. However, the study may be relevant to small not-for-profits organizations. (2) Location – the international research audience specific to Libya is likely to be limited to Libyans and a few others – a small proportion of global readership. We need to consider the question(s) dealt with in the research paper and how Libya in this context is representative of other parts of the world –i.e. other countries or regions. Examples of generalizable countries or regions may include: resource-based economies, developing countries, African countries, North African countries, countries with internal instability and conflict or perhaps some other important unifying aspect. (3) Technology – some social scientists suggest that generalizability exists across all technologies, while some natural and applied scientists consider context (science or technology) to be a critical difference. Technology innovation management research finds that phenomena are often generalizable across specific groups of technology – for example the relationship between product and process innovation differ for assembled products (Utterback, 1994), services (Barras, 1986), and engineered materials (Linton and Walsh, 2003). Possible interpretations of our mobile telephone example include: information technology, communication technology, infrastructure, and advanced technology. Other categories could be appropriate for describing the example, but what is offered is sufficient to provide insight into the thought process and reflection that need to occur when considering generalizability of results.

In all cases the reasoning on why research is/not generalizable should be discussed. Both theoretical and empirical support is relevant. Stating what additional research could assist in assessing generalizability is worthwhile. Based on contribution to novelty and generalizability, implications are now considered.

### 3. Implications

*Novelty* and *generalizability* are closely linked to *implications*. Something new with some level of generalizability contributes to theory. (Theory being the underlying relationships between various natural and/or social phenomena.) In the absence of a theoretical contribution it is difficult for academic journals, such as *Technovation*, to justify publishing a paper. Consequently, few published papers lack a theoretical contribution. Many authors feel review papers are an exception to expectations regarding novel contribution. Reviews may focus on reporting and describing which journals, papers, and authors are most notable in the area of review. However, prestigious journals look for review papers that offer a clear contribution. For example, indicating how the literature clusters into sub-themes and the apparent relations between the sub-themes. The most likely place to see a paper with minimal theoretical contribution is in a special issue. While articles are considered as independent freestanding units, in special issues an article is an integral unit of a group of articles. Consequently it is possible for a special issue article to lack an independent theoretical contribution, but still contribution to the special issue. This is not a suggestion that authors aim theory-free articles at special issues (a risky publishing strategy). The intent is to offer a more complete picture of the practices of high-impact academic journals.

*Implications to theory* is the main objective, however, *news you can use* is greatly appreciated by academic and non-academic readers. These *implications to practice* can be divided into two separate parts – *implications to managers* and *implications to policy makers*. *Implications to managers* outline what the paper contributes to how managers should act and/or make decisions. *Implications to policy* offer insights into how the theory relates to formulating appropriate policy and/or regulations. *Implications to practice* offer examples of how your paper can be applied to ‘real world’ situations. This helps people better put the research into perspective, thereby providing a more complete picture in the reader’s mind – academic, practitioner or student.

### 4. Concluding Notes

There has been a tremendous growth in research over the last two decades. Since taking on the role as Editor-in-Chief, I have personally seen increases in submission as high as 50% in one year. While the number of publication outlets has been increasing, the most desirable journals have tended to maintain a constant publishing volume. Hence to publish somewhere is probably no more difficult than it was twenty years ago. However, to publish in a specific reputable journal is of increasing difficulty. While an increase in Editorial Board size has partially made up for managing the change in volume, the number of reviewers has not increased proportionately. As a result, many esteemed journals have a higher minimum threshold to either place a paper under review or request a revision. Note wisely: termination of the review process for a paper that has undeveloped potential is more likely now than in the past. Consequently, it is important to immediately demonstrate the internal beauty of your research by clearly and consistently presenting its *novelty*, *generalizability* and the *associated implications*.

A parting note: if you find that your papers are using terminology such as exploratory, requires further study, needs to be tested on different... then it is quite likely that your paper is more beastly than it needs to be due to unresolved issues relating to generalizability. It is critical that you unlock the beauty of research before submitting your work to the preferred publishing outlet. Hence, the pre-submission process on every paper should include determining if *novelty*, *generalizability* and the *associated implications* have been developed sufficiently.

### References

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